

Notice of Allowability

Application No.

10/567,358

Examiner

Dameon E. Levi

Applicant(s)

NAKATA ET AL.

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/19/2007.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) .
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 02/06/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

Claims 1 and 2 are allowable.

The following is an examiner's statement of reasons for allowance: In response to remarks and claim amendments made in Applicants' Request for Continued Examination submitted 09/19/2007, and, upon conclusion of a comprehensive search of the pertinent prior art, the Office indicates that the claims, as amended, are allowable. Regarding independent claim 1, patentability exists, at least in part, with the claimed features of, one or more semiconductor mounting paste guide paths are formed in the mounting pads; a broad section for pressing out and spreading uniformly the semiconductor mounting paste for connecting to an IC chip is formed in a part of the pad clearance gap; and a thin film layer is formed in a center section of the broad section.

A careful examination of the prior art of record, Ikefuji et al, does not adequately teach or disclose all of the limitations above, arranged and disposed in the same manner as claimed by the Applicants.

Applicant's Arguments regarding first embodiment of Ikefuji, solder bumps disposed at precisely the locations of the terminals are used to connect the IC chip to the substrate. This solder is in no way disposed in a gap between terminals. Ikefuji clearly describes the goal of avoiding a short circuit of the coils 12, and if the solder were disposed between the terminals, this would cause a short circuit.

In the second embodiment of Ikefuji, an anisotropic film 19 is used to connect the IC chip to the substrate. This anisotropic film does not have a viscosity which enables it to flow, and therefore, no semiconductor mounting paste guide path is needed.

There is no disclosure or suggestion of any semiconductor mounting paste in either the third or fourth embodiment of Ikefuji. Additionally, Ikefuji fails to disclose or suggest any thin film applied to any central portion of a broad section. The arguments were found to be persuasive.

The pertinent prior art, when taken alone, or, in combination, does not adequately teach or suggest all of the limitations as claimed by the Applicants.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E. Levi whose telephone number is (571) 272-2105. The examiner can normally be reached on Mon.-Thurs. (9:00 - 5:00) IFP, Fridays Telework.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dameon E Levi
Examiner
Art Unit 2841

DEL


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SUPERVISORY PATENT EXAMINER
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9/28/07